

CLAIM AMENDMENTS

Claims 1-25 (Canceled)

26. (New) A method comprising:
transferring pixel data to a transformation engine at a given memory address range;
performing a transformation on the pixel data; and
readdressing the transformed pixel data to another memory address range without using a fetch engine.

27. (New) The method of claim 26 further including:
manipulating the transformed pixel data without going between a memory location and another transformation engine.

28. (New) The method of claim 27 further including:
writing pixel data to a first virtual memory location; and
performing a first pixel transformation at said first virtual memory location in a virtual memory space.

29. (New) The method of claim 28 further including:
generating a virtual memory address for a second memory location.

30. (New) The method of claim 29 further including:
re-mapping a virtual memory address of said first virtual memory location to write said transformed pixel data from said first virtual memory location to said virtual memory address of said second memory location; and
transferring the pixel data to a memory controller using a memory controller client in a forward, write-through direction.

31. (New) The method of claim 30 further including writing pixel data to a virtual memory location associated with a memory controller client that receives pixel data written to certain virtual addresses.

32. (New) The method of claim 31 including causing an operating system to set aside virtual addresses for said memory controller client.

33. (New) The method of claim 30 wherein generating said virtual memory address for said second memory location includes transforming the addresses of said pixel data at said first virtual memory location to addresses at said second memory location.

34. (New) The method of claim 33 including determining the offset to pixel data by subtracting a base address at said first virtual memory location from the address of pixel data.

35. (New) The method of claim 34 including adding said offset to a base address of said second memory location.

36. (New) The method of claim 30 wherein writing said transformed pixel data from said first virtual memory location to said second memory location includes writing the pixel data from said first virtual memory location associated with a first transfer function to said second memory location associated with a second transfer function.

37. (New) The method of claim 36 including transforming the addresses of the pixel data from addresses in a first virtual memory range associated with said first transfer function to memory addresses in a second virtual memory range associated with said second transfer function.

38. (New) An article comprising a medium storing instructions that enable a processor-based system to:

transfer pixel data to a transformation engine at a given memory address range;
perform a transformation on the pixel data; and

readdress the transformed pixel data to another memory address range without using a fetch engine.

39. (New) The article of claim 38 further storing instructions that enable the processor-based system to:

manipulate the transformed pixel data without going between a memory location and another transformation engine.

40. (New) The article of claim 39 further storing instructions that enable the processor-based system to:

write pixel data to a first virtual memory location; and

perform a first pixel transformation at said first virtual memory location in a virtual memory space.

41. (New) The article of claim 40 further storing instructions that enable the processor-based system to:

generate a virtual memory address for a second memory location.

42. (New) The article of claim 41 further storing instructions that enable the processor-based system to:

re-map a virtual memory address of said first virtual memory location to write said transformed pixel data from said first virtual memory location to said virtual memory address of said second memory location; and

transfer the pixel data to a memory controller using a memory controller client in a forward write-through direction.

43. (New) The article of claim 42 further storing instructions that enable the processor-based system to write pixel data to a virtual memory location associated with a memory controller client that receives pixel data written to certain virtual addresses.

44. New The article of claim 43 further storing instructions that enable the processor-based system to cause an operating system to set aside virtual addresses for said memory controller client.

45. (New) The article of claim 42 further storing instructions that enable the processor-based system to transform the addresses of pixel data at said first virtual memory location to addresses at said second memory location.

46. (New) The article of claim 45 further storing instructions that enable the processor-based system to determine the offset to each pixel data by subtracting a base address at said first virtual memory location from the address of each pixel data.

47. (New) The article of claim 46 further storing instructions that enable the processor-based system to add said offset to a base address of said second memory location.

48. (New) The article of claim 42 further storing instructions that enable the processor-based system to write said pixel data from said first virtual memory location

associated with a first transfer function to said second memory location associated with a second transfer function.

49. (New) The article of claim 48 further storing instructions that enable the processor-based system to transform the addresses of said pixel data from addresses in a first virtual memory range associated with said first transfer function to memory addresses in a second virtual memory range associated with said second transfer function.

50. (New) A system comprising:
a memory controller that receives pixel data and virtual memory addresses for a transformation of the pixel data in a virtual memory space;
a first memory controller client that forwards the pixel data and virtual memory addresses to a first transfer function; and
a second memory controller client that receives data from said first transfer function together with new virtual memory addresses for transfer in a forward, write-through direction without using a fetch engine.

51. (New) The system of claim 50 wherein said first memory controller client selectively forwards the pixel data and virtual memory addresses to one of a plurality of transfer functions and said second memory controller client receives the pixel data with new virtual memory addresses from said plurality of transfer functions.

52. (New) The system of claim 51 wherein said second memory controller client writes the pixel data back to said memory controller.

53. (New) The system of claim 50 including a plurality of transfer functions, one of said transfer functions arranged to write output data to an address range of another transfer function.

54. The system of claim 53 wherein said transfer functions are associated with virtual memory address ranges.
